

REMARKS

Claims 27-35 are pending and have been examined. Claims 27-35 stand rejected. Claim 27 has been amended and Claims 28 and 35 have been canceled without acquiescence in the Examiner's position, without abandonment of the invention claimed in the canceled claims and without prejudice to applicants' right to pursue the canceled subject matter in future applications. No new matter has been introduced. Reconsideration and allowance of Claims 27 and 29-34 is respectfully requested.

The Rejection Under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 27-35 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 3,659,239 (Whitehead) in view of U.S. Patent No. 5,317,151 (Sinha et al.). Applicants respectfully disagree.

Applicants submit that the Examiner has failed to establish a prima facie case of obviousness. There are three requirements for establishing a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Third, the prior art reference must teach or suggest all the claim limitations.

Claims 28 and 35 have been canceled. Amended Claim 27, from which Claims 29-34 depend, recites that the method comprises introducing charged particles into a magnetic separator having an inhomogeneous magnetic field in one plane and a homogeneous magnetic field in another plane that provides a linear dispersion of the charged particles proportional to their mass-energy-to-charge ratio. Applicants submit that there is no suggestion or motivation, either in the Whitehead reference or the Sinha et al. reference, with or without the knowledge generally available to one of ordinary skill in the art, to use a magnetic separator having an

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inhomogeneous magnetic field in one plane and a homogeneous magnetic field in another plane to provide a linear dispersion of the charged particles. As acknowledged by the Examiner, the Whitehead reference does not teach or suggest the use of an inhomogeneous magnetic field in a magnetic separator to provide a linear dispersion of the charged particles.

The teachings of the Sinha et al. reference do not cure the deficiencies of the Whitehead reference. The Sinha et al. reference does not teach or suggest the use of an inhomogeneous magnetic field to achieve linear dispersion of charged particles. In fact, the Sinha et al. reference explicitly specifies the use of a homogeneous magnetic field by stating that "[t]he two opposing pole piece surfaces delimit a uniform magnetic field region through which ion beam 5 passes after leaving the electric sector 6" (see, Col. 5, lines 10-13, emphasis added). Moreover, as pointed out in the specification, "magnetic separators employ uniform fields perpendicular to the incident charged particle. Those skilled in the art of magnetic design go to great lengths to ensure uniformity" (Specification, page 1, lines 19-22, emphasis added). The specification further points out that "[t]he advantage of the uniform magnetic separator is that for a collimated charged particle beam it provides a focus along a plane parallel to the magnetic field along which the particles of all mE/q are focused" (Specification, page 2, lines 12-15). Thus, it would not have been obvious to one of skill in the art to combine the teachings of the Whitehead reference and the Sinha reference to arrive at the claimed invention.

Moreover, neither the Whitehead reference nor the Sinha et al. reference teaches, suggests, or provides motivation for the use of a magnetic separator having an inhomogeneous magnetic field in one plane and a homogeneous magnetic field in another plane. Therefore, the Whitehead and Sinha et al. references, either alone or in combination, fail to teach, suggest, provide any motivation to make, or otherwise render obvious the claimed invention. Withdrawal of this ground of rejection is respectfully requested.

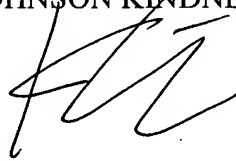
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Conclusion

In view of the above amendments and foregoing remarks, applicants believe that Claims 27 and 29-34 are in condition for allowance. If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone applicants' attorney at 206.695.1783.

Respectfully submitted,

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